

**What is claimed is:**

1. A polyacrylate obtainable by thermal crosslinking of a polymer mixture comprising the following components:

- 5      a) a polyacrylate copolymer of the following monomers
- a1) acrylates and/or methacrylates of the following formula
- $\text{CH}_2 = \text{CH}(\text{R}^1)(\text{COOR}^2)$ ,
- where  $\text{R}^2 = \text{H}$  or  $\text{CH}_3$  and  $\text{R}^2$  is an alkyl chain with 1-20 carbon atoms,  
          at 65-99% by weight, based on a),
- 10     a2) olefinically unsaturated monomers containing functional groups,  
          at 0-15% by weight, based on a),
- a3) acrylates and/or methacrylates whose alcohol component contains  
          tert-butoxycarbonyl (BOC) and/or hydroxyl groups,  
          at 1-20% by weight, based on a),  
          at 80-99.8% by weight, based on the polymer mixture of claim 1,
- 15     b) a polymerization regulating photoinitiator  
          at 0.1-15% by weight, based on the polymer mixture of claim 1,  
c) difunctional isocyanate and/or bifunctional epoxide  
          at 0.1-5% by weight, based on the polymer mixture of claim 1.
- 20     2. The polyacrylate as claimed in claim 1, wherein  
          component b) is used at 0.5-1.5% by weight, based on the polymer mixture, and/or  
          component c) is used at 0.5-1% by weight, based on the polymer mixture.
- 25     3. A process for preparing a crosslinked polyacrylate, wherein  
          the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl  
          groups and the crosslinking takes place only after the deprotection, by thermal treatment  
          of the now deprotected polyacrylates.
- 30     4. A process for preparing a crosslinked polyacrylate, wherein

the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl groups and the crosslinking takes place only after the deprotection, by adding crosslinker substances and by thermal treatment of the now deprotected polyacrylates.

- 5 5. A process for preparing a crosslinked polyacrylate, wherein  
the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl  
groups and the crosslinking takes place only after the deprotection, by adding  
difunctional or polyfunctional isocyanates and by thermal treatment of the now  
deprotected polyacrylates.
- 10 6. A process for preparing a crosslinked polyacrylate, wherein  
the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl  
groups and the crosslinking takes place only after the deprotection, by adding  
difunctional or polyfunctional epoxides and by thermal treatment of the now deprotected  
polyacrylates.
- 15 7. The process as claimed in any of the above claims wherein  
the protective groups are eliminated by irradiation with UV light.
- 20 8. The process as claimed in any of the above claims wherein  
to eliminate the protective groups the polymer mixture is irradiated with ultraviolet light  
through a mask in such a way that only certain regions of the polymer mixture are  
exposed to the UV radiation.
- 25 9. The use of a polyacrylate of one of the above claims as a pressure-sensitive adhesive  
composition.
- 30 10. The use of a polyacrylate of one of the above claims as a pressure-sensitive adhesive  
composition for an adhesive tape, where the acrylic pressure-sensitive adhesive  
composition is present as a single- or double-sided film on a backing.